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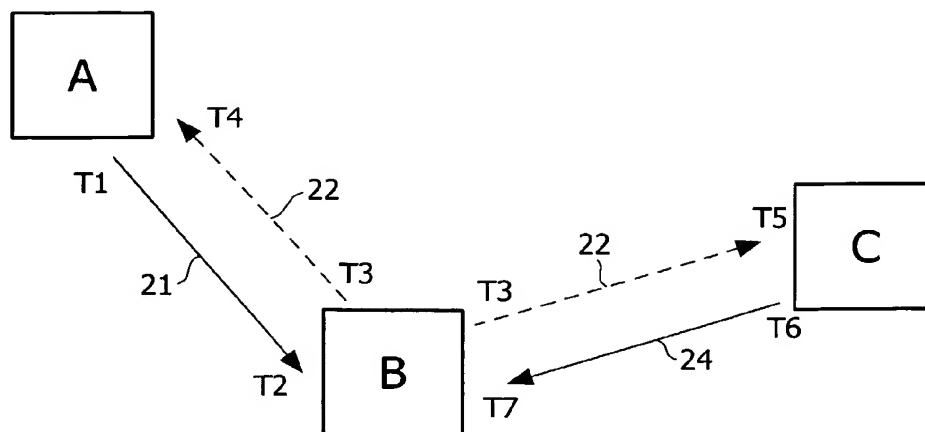
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(54) Title: MAKING TIME-OF-FLIGHT MEASUREMENTS IN MASTER/SLAVE AND AD HOC NETWORKS BY EAVES-DROPPING ON MESSAGES



(57) Abstract: Method for obtaining range and/or positional information of electronic devices typically rely on a device (A) requesting that another device (B) supplies a reply message (22), which contains some timing information (T2, T3) on the signals received and sent. Problems that arise in such networks comprise: firstly, some devices (C) may be out of range of the device (A) that initiates the ranging measurements, and secondly, some devices (B, C) may not be allowed to communicate with each other and thus, the distance between these devices cannot be found. This invention discloses that in these cases, eavesdropping on messages (21, 22, 24) passing between other devices (A, B, C) in the system can result in that distances between additional devices are found. Furthermore, by using eavesdropping the number of transmissions, and therefore the potential for collisions, is reduced. Thus, the power consumption of the nodes in the network can be lowered.

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